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July 13, 2006

Mr. David McGraw
Associate Laboratory Director/Chief Operating Officer
Lawrence Berkeley National Laboratory
1 Cyclotron Road, Mail Stop 50A-4112
Berkeley, CA 94720

Reference: Draft Proposal for McCallum-Turner, Inc. Support to Integrated Safety Management System Review of Lawrence Berkeley National Laboratory

Dear David:

It was a pleasure speaking with you, Howard Hatayama, and Aundra Richards last week. As a follow-up to that conversation and as we agreed, please find attached a draft proposal outlining McCallum-Turner, Incorporated support to the conduct of an Integrated Safety Management System (ISMS) "Readiness Review" for Lawrence Berkeley National Laboratory (LBNL). The proposal is segmented into two distinct elements: Technical Approach and Cost Proposal. The information contained in this proposal is intended to reflect and be consistent with the discussions we had with you and your colleagues regarding the overall philosophy and execution of an ISMS review. As discussed, this approach is also structured to be consistent with our firm's ISMS assessment experience and the lessons learned from those previous assignments.

We have identified a preferred schedule "window" - September 19 through 27 – and a possible but somewhat difficult alternative – September 5 through 13 - when we might conduct the review. We have also been in preliminary contact with a number of Office of Science Laboratory personnel from PNNL, ORNL, BNL and INL who, based on their work experiences and involvement in reviews of this type, are potential candidates to participate on the review team.

We very much appreciate the opportunity to provide support to Lawrence Berkeley National Laboratory on this critical activity. Please contact Bob McCallum on 240-446-6298 or Kyle Turner on 303-808-2457 if you have any questions.

Regards,

Robert F. McCallum, Principal
McCallum-Turner, Inc.

cc: Ken Brog, McCallum-Turner, Inc.
Kyle H. Turner, McCallum-Turner, Inc.

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TECHNICAL APPROACH
McCallum-Turner, Inc. Support to Integrated Safety Management System Review of Lawrence Berkeley National Laboratory

1.0 Background

The Lawrence Berkeley National Laboratory (LBNL) has requested that McCallum-Turner, Inc. (McT) – in collaboration with contributed (and yet-to-be identified) personnel from other Department of Energy (DOE) Office of Science Laboratories – conduct a review of the Integrated Safety Management System (ISMS) at LBNL. LBNL desires that this ISMS review emulate – to the extent practical – the general approach used by the DOE Headquarters Office of Independent Oversight and Performance Assurance in performing reviews of ISMSs. The Laboratory has requested that a highly credible team of recognized experts be identified with broad experience in, and understanding of, ISMS, laboratory operations, and the critical principles under which the Laboratory is managed with respect to its ISMS.

McT has conducted several similar reviews at other Office of Science Laboratories and has worked with a key core of Office of Science Laboratory personnel in the execution of such reviews. McT proposes that Bob McCallum, Ken Brog and Kyle Turner participate as members of the ISMS Review Team – with Bob McCallum designated as the overall Team Leader. All three McT personnel have been involved in numerous ISMS-type reviews, and are very familiar with the overall philosophy and approach used by the DOE Headquarters Office of Independent Oversight and Performance Assurance in conducting ISMS reviews and assessments.

If directed by LBNL, this review will be coordinated with parallel activities of the Berkeley Site Office related to its ISMS self-assessment. This proposal outlines the functions and activities for McT to provide leadership for and support execution of the ISMS Review at LBNL, with specific duties with respect to the Berkeley Site Office ISMS assessment (if desired) to be finalized as part of the assessment planning process.

2.0 Objectives and Assumptions

The objectives of the ISMS Review include the following:

- Determine the overall effectiveness of the LBNL ISMS in satisfying the DOE requirements for integrated safety management;

- Determine the ISMS implementation effectiveness of selected elements of the Laboratory's programmatic missions and operations with respect to the five Core Functions (and Guiding Principles 1-3) of ISM;

- Identify areas of vulnerability, gaps and weaknesses with respect to the five Core Functions (and Guiding Principles 1-3) of ISM;

- Identify areas of strength and/or best practices with respect to the five Core Functions (and Guiding Principles 1-3) of ISM;

- Evaluate the effectiveness and rigor of selected ISMS-related processes of the Berkeley Site Office (if requested); and

- Provide recommendations for improvements in ISMS program design and/or implementation, as applicable, which could lead to or form the basis for downstream Laboratory corrective actions.

Critical assumptions for our proposal:

- The review will focus on and be organized around the five ISM Core Functions and Guiding Principles 1-3.

- The Review Team will consist of three McT personnel (Turner, McCallum, and Brog); seven Office of Science contractor personnel; and, possibly, one DOE person.

- LBNL will identify a key point of contact who will work closely with the Review Team in ensuring identification and timely availability of critical documents (prior to the second site visit), resources, and access to needed personnel for interviews, etc.

- The onsite assessment will require approximately 1.5 weeks.

- A planning trip of two days on site for selected Team members – at a minimum this will be the three McT personnel - will occur well in advance of the onsite review.

3.0 Overall Philosophy of Review

There are a number of key principles that will guide the ISMS review. The principles are as follows:

- The Review Team will examine the ISMS as it is designed and implemented at LBNL – at the institutional, division/department, and program/activity levels.

- Special emphasis will be placed on user facilities because of the inherent challenges and risks associated with ensuring that non-UC/LBNL personnel are appropriately cognizant of work place hazards and fully competent in the safe implementation of necessary hazard controls.

- The Review Team will consider how the ISMS is reflected in the interplay of the safe management of facilities (and their attendant risks) and the safe conduct of work/research within those facilities.

- The Review Team will determine the extent to which the ISMS – as it is articulated in documents and implemented in practice – is consistent with DOE expectations.

- The Review Team will use the criteria and expectations as outlined by the DOE Headquarters Office of Independent Oversight and Performance Assurance, DOE Order 226.1, and other key DOE documents (DOE Policy 450.4) as the requirements framework (set of DOE expectations).

- The Review Team will structure the onsite review to sample key elements of the Laboratory's programmatic and operations missions with respect to conformance to ISMS expectations.

- The review will examine both research and development activities – that is, those performed by the four science directorates (Life & Environmental Sciences, Physical Sciences, Computing Sciences, and General Sciences) – and – operations and maintenance-related activities – that is, those performed by the Operations Directorate (Facilities and EHS).

- The approach to understanding the ISMS at the science bench top will involve direct interactions between Review Team members and LBNL researchers. The Review Team will propose a sampling approach, which will be intended to view elements within each of the four science Directorates with emphasis being placed on those organizations having higher risk (e.g., hazard profile, recent performance, proportion of visitors/guests/students, etc.).

- Specific operations activities to be examined will likely be based on such factors as: risk, recent performance, and availability at time of onsite review. Assigned Team members will likely observe "plan-of-the-day" activities and then "shadow" maintenance and operations personnel.

- Subject to approval by the Laboratory, the Review Team will take advantage of and observe any ISMS-related activities occurring during the period of the onsite review. This might include, for example, event critiques or performance reviews.

- Interviews will be conducted with personnel from across the Laboratory and Site Office organizations (e.g., senior managers, first line supervisors, principal investigators, researchers, technicians, maintenance and operations personnel, and ESH personnel).

- To increase the breadth and depth of the sample, both one-on-one and group interviews will be conducted. Group interviews will typically be personnel with like job responsibilities from one or more organizations and with no supervisory-subordinate relationships present within a given group interview.

4.0 Managing the Review/Project

The overall review project is defined in terms of three overarching activities: Planning, Onsite Review, and Report Development.

4.1 Planning

Planning is defined from project initiation up to the point of the start of the onsite review. Key planning activities include the following:

- Establishing the assessment scope – including execution of the scoping visit.
- Identifying the balance of the Review Team.
- Allocating work assignments among Review Team members.
- Identifying logistical needs while onsite and communicating such to LBNL (e.g., office space, computer support, site access, training requirements).
- Identifying key documents to review – both before and during the on-site review (e.g., ISMS Plan, Laboratory-wide policies and procedures identified on page 11 of the ISMS Plan, associated ISMS performance expectations and assessment plans, etc.).
- Identifying key personnel to interview (e.g., Berkeley Site Office personnel, senior managers, first line supervisors, principal investigators, researchers, technicians, maintenance and operations personnel, and ESH personnel).
- Developing focused lines of inquiry based on the DOE Headquarters Office of Independent Oversight and Performance Assurance criteria and related governing documents.
- Conducting Review Team teleconferences to ensure understanding of roles and to track planning progress.
- Ensuring scheduling of interviews, etc.

4.2 Onsite Review

The onsite review is proposed to occur over a 1.5 week period (preferably in late September). Key aspects of the onsite review include the following:

- An in-briefing for the key LBNL and Berkeley Site Office personnel to introduce the team, reaffirm review objectives, and outline expected activities for the review.
- End of day Review Team (only) meetings to discuss results, observations, and to identify additional interview or document needs.

- Early morning informal meetings with key Laboratory personnel (if desired) to convey key observations, safety issues (if any), and logistical needs or changes.

- An out-briefing to summarize key observations and conclusions from the onsite review and to provide the framework (content) for the factual accuracy report.

4.3 Report Development

Report development includes all those activities commencing with the creation of an annotated outline and concluding with transmittal of a final report. Key elements include:

- Establishing an annotated outline for the report, providing to LBNL for review, and modifying as appropriate.

- Allocating writing assignments among Team members.

- Developing a draft factual accuracy report following completion of the onsite review and transmittal to LBNL.

- Review of the factual accuracy report by LBNL and transmittal of consolidated comments to McT.

- Development and transmittal of the final report.

5.0 Schedule

The initial schedule of activities is expected to be follows:

▪ Identify draft assessment scope	July 28
▪ Support identification of Team members	July 28
▪ Conduct scoping visit to Laboratory[1]	Week of August 7 (2 day visit)
▪ Identify key references	Week of August 7 (2 day visit)
▪ Identify key interviewees	Week of August 7 (2 day visit)
▪ Establish logistical needs for onsite visit	Week of August 7 (2 day visit)
▪ Assign scope areas to Review Team members	August 11 - 14

[1] The objectives of the Scoping Visit will be to finalize the assessment scope, identify key references, identify key interviewees, and establish logistical needs for the assessment team while onsite and prior to the onsite assessment visit.

- Develop lines of inquiry, review materials, etc. August 14 – September 15
- Receive and review selected key documents August 14 – September 15
- Design report and briefing templates August 14 – September 15
- Conduct call with LBNL to finalize details of visit Week of August 28 or September 4
- Conduct onsite in-briefing and interview activities September 19-27
- Provide periodic updates and out-briefing to LBNL personnel September 19-27
- Prepare factual accuracy report October 6
- Prepare final report 1 week after receipt of comments